European guidelines for diagnosis and management of patients with suspected herpes simplex encephalitis

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The current European guidelines for diagnosis and management of patients with suspected herpes simplex encephalitis (HSE) [1] suggest that polymerase chain reaction (PCR) for Herpes simplex virus (HSV) should be performed on CSF samples from all patients diagnosed to have HSE on clinical grounds alone.

Many clinicians will include HSE in the differential diagnosis of a wide range of presenting complaints and request HSV PCR prior to the results of CSF analysis being available. Laboratory tests using PCR are relatively expensive and, given the financial constraints applied by healthcare purchasers, any guidelines must ensure that such tests are performed appropriately.

Accordingly, we examined the relationship between the results of HSV PCR and CSF white cell count (WCC) and protein content in samples taken from in-patients at the Leeds General Infirmary since January 1997. There was a clear relationship between the CSF WCC, protein content and HSV PCR result as shown in the table. Only three (5%) of the 58 samples tested were positive by HSV PCR.

All three had raised CSF WCC (>5 per mm^3) but only two had raised CSF protein (>0.45 g/l). Thirty-four (59%) had normal CSF WCC (<5 per mm^3) and protein content (<0.45 g/l) of which twenty-one (36%) had CSF WCC <1 per mm^3. Cases of HSE with CSF WCC of less than 5 have been reported [2] but unfortunately the results of CSF protein content were not stated.

Declining to process samples with CSF WCC <1 per mm^3 and normal CSF protein content could reduce workload and reduce costs by approximately one-third. We will continue to process all requests for HSV PCR on CSF samples and compare results with

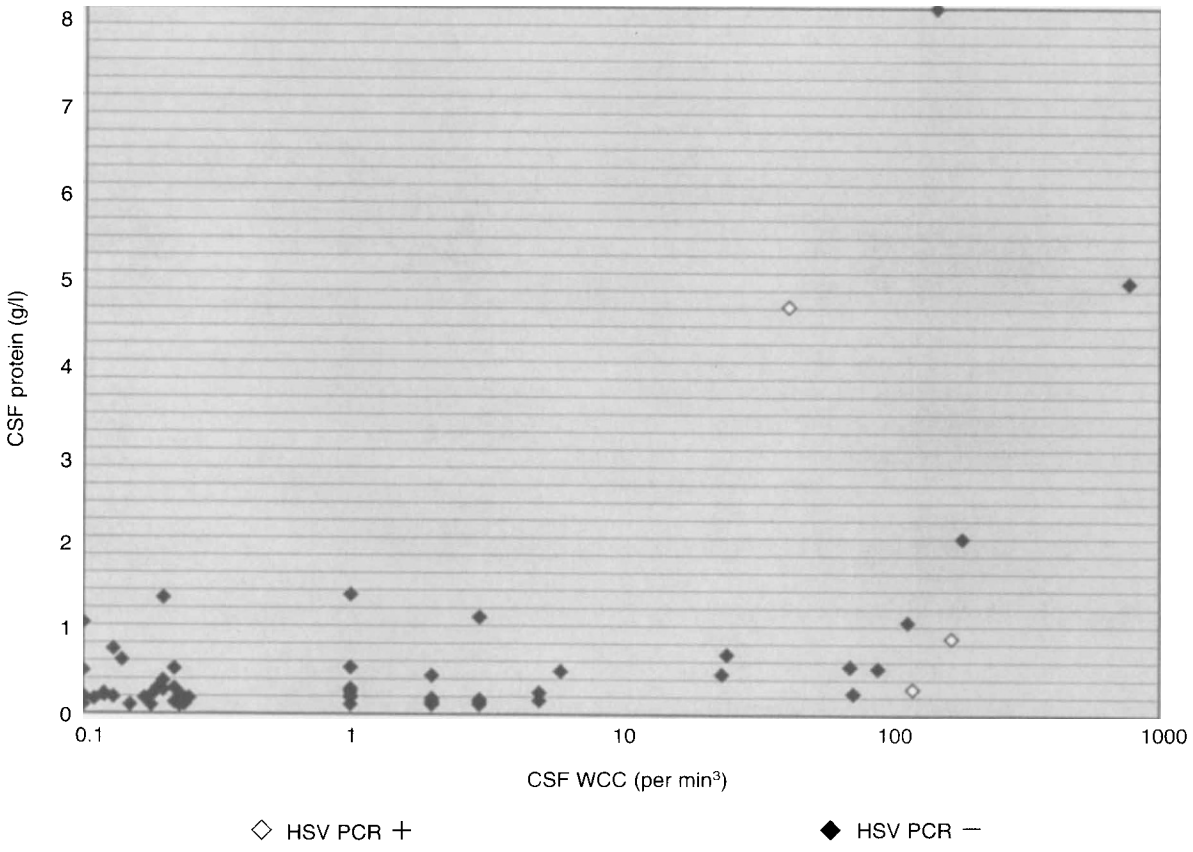

Figure 1 Relationship between CSF WCC/protein and HSV PCR result.

the CSF WCC/protein content to determine if this relationship continues and is sufficiently robust to allow selective HSV PCR sampling in the future.

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A case of acute cholecystitis due to *Aeromonas sobria* and *Hafnia alvei* from northern Europe

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INTRODUCTION

Aeromonas (family Vibrionaceae) is a genus of Gram-negative non-sporulating facultative anaerobic rods that ferment carbohydrates [1]. It includes at least 14 genome species or DNA hybridization groups (HGs), from which 11 phenotypic species have been named [2]. The most clinically important phenospecies are *A. hydrophila, A. caviae, A. veronii* and *A. sobria* (*A. veronii* biogroup *sobria*) [1,2]. *Aeromonas* spp. are generally found in temperate and tropical aquatic climates and are readily isolated from fresh and estuarine water, soil, animals and fish [1,2]. A high incidence of healthy fecal carriers has been observed in Asia, whereas the incidence in Europe, including northern Sweden, is less than 1% [1,3]. The genus is associated with gastroenteritis and it is well established that *Aeromonas* spp. produce enterotoxin [2]. The predominant cause of rare but often severe invasive infections in humans appears to be *A. hydrophila* [1,2]. The majority of these patients showed underlying illness, especially chronic hepatobiliary disease [1,4].

Hafnia alvei (family Enterobacteriaceae) is a Gram-negative facultative anaerobe rod occurring in a variety of environmental sources [5–7]. *H. alvei* is regarded as a commensal in the human gastrointestinal tract [6]. In one study, the bacterium was isolated from stool samples in 5% of 105 healthy residents of northern Sweden [3]. *Hafnia* is only rarely associated with human disease but has been implicated as a cause of diarrheal illness in children and travelers, from whom strains expressing the attachment–effacement gene of *Escherichia coli* have been isolated [6,7]. Here we report a case of acute cholecystitis in a woman with chronic lymphatic leukemia from whom both *A. sobria* and *H. alvei* were isolated in repeated cultures from bile.

CASE REPORT

The patient was a 67-year-old woman living on the coast of the Gulf of Bothnia (64° latitude north). Her husband was an enthusiastic sports fisher, fishing mainly in the estuary of the Umeå river. The catches were regularly prepared by the patient, and fish dishes were served several times a week in the household. The patient had never traveled abroad.

In April 1994 chronic lymphatic leukemia was diagnosed. Subsequently, the patient developed severe hemolytic anemia, and chemotherapy was initiated in 1995. After remission, treatment was continued with steroids. In January 1996 she developed clinical signs of cholangitis and an endoscopic retrograde cholangiographic (ERC) papillotomy, and stone extraction was performed, after which the biliary symptoms subsided.

The patient was readmitted in April 1997 with a 3-day history of fever and abdominal pain. On admittance she was in good general condition. Physical examination revealed tenderness in the upper right abdomen. The C-reactive protein (CRP) level was 85 mg/L (<10 mg/L) and the leukocyte count was 10.6×10^9/L. Serum bilirubin, alkaline phosphatase and serum aminotransferase levels were within the normal range, except for alanine transaminase, which was slightly raised to 1.26 (normal range 0.20–0.60 μkat/L). Ultrasound revealed a dilated gallbladder with wall thickening. Treatment with intravenous piperacillin/tazobactam (4 g every 8 h) was initiated. Due to persistent high fever and clinical signs of peritonitis, a cholecystectomy was performed on the second day of hospitalization. A stone from the common duct was removed and T-tube drainage was left. Histopathologic examination showed an inflamed gallbladder. Recovery was swift and uneventful. Laboratory tests, including